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Department of Defense Environmental Programs: Background and Issues for Congress

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SUMMARY

Between FY1984, when Congress established a separate budget account for defense environmental cleanup, and FY1994, reported Department of Defense funding for environmental programs climbed from $250 million to more than $5 billion. In part, the growth was driven by the evolution of Federal regulations requiring cleanup of toxic wastes and by the progress of the cleanup process. In addition, over the past 10 years, Congress has extended the scope of DOD's environmental programs to include conservation of resources on military bases and environmental research programs. Finally, in the early 1990s, the Defense Department began to identify and report costs of complying with other environmental laws and regulations. As a result, between FY1990 and FY1993, reported DOD environmental funding more than tripled. Since reaching a peak of $5.6 billion in FY1994, funding has fallen slightly, but environmental programs still total about 2% of the DOD budget.

Recently, concern over the efficiency and accountability of DOD's environmental programs has led Congress to review funding very closely. Some Members of Congress see defense environmental programs as a "non-defense" activity that should be reduced or eliminated from the defense budget. Some Members also wish to reduce the scope and cost of Federal environmental regulations in general. Changing attitudes are reflected in rescissions of FY1995 funds for defense environmental restoration, decrements to the department's requested appropriations for FY1996, the requirement for cost-benefit analyses of cleanup in the House's *Job Creation and Wage Enhancement Act of 1995* (H.R. 9), and some aspects of Superfund (CERCLA) reauthorization bills (H.R. 2500 and S. 1285) now under consideration in both Houses. DOD has supported some changes in CERCLA to ease cleanup costs, including provisions to require consideration of future use of facilities in determining the extent of cleanup, to permit temporary remediation at some sites, and to clarify federal *versus* state regulatory authority.

In addition to funding for DOD cleanup programs and Superfund reform, several other issues may be matters of congressional interest in 1996. Last year, Congress began to scrutinize the costs of DOD environmental compliance activities. Some DOD officials fear that Congress will impose a cap on compliance spending that, they warn, may increase costs in the long term. Congress may also consider

compliance spending that, they warn, may increase costs in the long term. Congress may also consider centralizing funding for compliance into a single account to increase accountability. DOD, however, contends that centralization reduces efficiency and, in fact, proposes to devolve the centrally-funded restoration account to the individual services.

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INTRODUCTION

Recent congressional debate over funding for non-traditional activities in the defense budget has focused attention on Department of Defense (DOD) expenditures for environmental programs. While Congress

attention on Department of Defense (DOD) expenditures for environmental programs. While Congress has continued to support cleanup of defense facilities and DOD efforts to comply with environmental regulations, some Members believe that no environmental activities should be funded through the Department of Defense's fiscally constrained budget. Many others believe that the department's environmental program is not operating efficiently and requires reform. Congressional skepticism about the status of defense environmental programs represents a significant shift in attitudes. For many years, Congress increased the scope of DOD's environmental programs. Early evidence of congressional disenchantment came in 1991, when Congress appropriated funds for defense environmental restoration below the level requested for the first time. Nevertheless, DOD's environmental program continued to grow through FY1994. In 1995, however, the 104th Congress rescinded $300 million of FY1995 funding for environmental restoration and reduced requested FY1996 funding by $200 million. As a result, DOD environmental funding declined for the first time, by almost 10% in real terms, between FY1994 and FY1996.

This report traces the evolution of Department of Defense environmental programs from the 1970s to the present and reviews shifts in DOD and congressional perspectives on those programs over that time. The report also provides an overview of DOD environmental activities and discusses funding trends. It further reviews several legislative matters under consideration in the 104th Congress that may affect DOD environmental programs. These include congressional action on DOD funding requests, proposed regulatory reform legislation, and potential Superfund reforms.

The report concludes with a discussion of possible measures to limit the cost of DOD environmental programs. Both congressional leaders and the Department of Defense have made proposals for improving cost control and efficiency. This report examines five major propositions:

- - Decreasing funds for environmental restoration;
- - Limiting funds allotted to restoration studies and assessments;
- - Revising cleanup procedures and amending environmental laws (including Superfund);
- - Capping funds for environmental compliance;
- - Centralizing or decentralizing funding for environmental activities in DOD accounts.

In analyzing these proposals, the report considers the potential each has for reducing costs, protecting the environment, and facilitating program visibility and congressional oversight.

The first part of this report is devoted to a fairly detailed review of the structure of DOD environmental programs and funding trends. The second part briefly discusses the evolution of congressional perspectives on DOD environmental programs and reviews congressional action in the 104th Congress to date. The third part reviews key current issues. Readers familiar with DOD environmental programs may wish to proceed directly to part three.

BACKGROUND

THE GREENING OF THE PENTAGON

In 1989, Secretary of Defense Dick Cheney signaled a revolution in the environmental ethos of the Department of Defense. In response to the criminal conviction of three DOD civilian employees for illegal waste storage and disposal, and the ensuing congressional criticism of DOD's environmental record, Cheney issued a memorandum to the Secretaries of the Military departments declaring that "the Department of Defense [will] be the Federal leader in agency compliance and protection. We must demonstrate commitment with accountability for responding to the Nation's environmental agenda." (1) This shift in policy was dramatic. For many years, the Department of Defense, occupying over 25 million acres of public land in the United States (an area as large as Tennessee), resisted the imposition of new environmental regulations. "Installation activities were kept within the 'fence'," Cheney's Deputy Assistant Secretary for the Environment, Thomas Baca, summarized. "DOD went about its business with little public scrutiny; sovereign immunity prevailed. We were the Defense Department." (2)

Pressure for DOD to become more environmentally sensitive began building on DOD as early as 1970, when the federal government's environmental activism took root. In that year, President Nixon presented

when the federal government's environmental activism took root. In that year, President Nixon presented Congress with an ambitious environmental agenda, calling for a "total mobilization" of federal resources to protect the environment. (3) Congress acted over the next 20 years to construct an extensive legal framework for environmental regulation, gradually incorporating federal facilities, including DOD installations, within the scope of "civilian" environmental laws. The 1980 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or "Superfund" law, included DOD facilities under the regulatory structure it established. Many others laws were enacted and amended over the years, including major amendments to the Clean Air Act (amended 1970, 1977, and 1990); Clean Water Act (amended 1972, 1977, and 1987); Safe Drinking Water Act (amended 1977, 1979, 1980, and 1986); and Solid Waste Disposal/Resource Conservation and Recovery Act (amended 1970, 1976, 1980, 1984, and 1988). (4) More recently, the 1992 passage of the Federal Facilities Compliance Act (P.L. 102-586) brought all federal facilities under federal, state, and local hazardous waste regulations, expanding DOD's compliance responsibilities.

Although it established a small environmental cleanup program in 1975, DOD's overall response to the pressure building on it through the 1970s and 1980s was slow and grudging. Acting on its concern that cleanup was not receiving adequate funding or visibility, Congress established the Defense Environmental Restoration Account in 1984 to set aside DOD funds for environmental cleanup. In 1986, Congress approved the Superfund Amendments and Reauthorization Act (SARA), clarifying the application of Superfund provisions to federal facilities. In the same year, President Reagan issued Executive Order 12580, still in place today, requiring federal agencies to comply with all cleanup standards.

Initially, most developments affecting DOD were aimed at ensuring timely cleanup of existing hazardous waste, reflecting the federal government's emphasis on Superfund-related activities throughout the 1980s. Over time, however, evolving laws and regulations governing ongoing sources of pollution began to affect day-to-day DOD operations. In 1989, three DOD civilian employees were convicted of illegally storing and disposing of hazardous waste in Aberdeen, Maryland. According to the Environmental Protection Agency, this was the first case in which federal employees were convicted under the Solid Waste Disposal/Resource Conservation and Recovery Act (RCRA). (5) The public and congressional outcry ultimately led to Secretary of Defense Cheney's public commitment to environmental leadership. DOD spent the next several years expanding and accelerating its environmental activities, in an attempt to allay external criticism. An early and significant step was Cheney's establishment of the position of Deputy Assistant Secretary of Defense (Environment). When the Clinton Administration took office in January 1993, DOD's chief environmental position was further elevated to the level of Deputy Under Secretary of Defense (Environmental Security).

THE STRUCTURE OF DOD ENVIRONMENTAL PROGRAMS

Officials typically divide DOD environmental activities into five "pillars":

- - **environmental restoration** - cleanup of pollution resulting from past activities;
- - **environmental compliance** - conducting current activities in accordance with environmental law;
- - **pollution prevention** - source reduction, recycling, phasing-out use of hazardous chemicals in production and maintenance;
- - **environmental technology** - research on global environmental threats and development of technology to make environmental activities more efficient; and
- - **conservation programs** - stewardship of natural and cultural resources on DOD-controlled lands.

The department also manages the Base Realignment and Closure Account (BRAC), used to fund all cleanup at bases slated for closure. All of DOD's environmental programs are funded either through Department of Defense appropriations or through Military Construction appropriations. The funding allotted to each portion of the environmental program in the department's FY1996 budget request is shown in **Figure 1**.

Figure 1

In recent years, the Defense Department has particularly emphasized its proactive pollution prevention and environmental technology programs. These two programs seek to reduce future liability and environ-mental costs through relatively modest up-front investments. Generally, Congress has been supportive of these efforts, and no major legislative issues have arisen. By contrast, Congress has focused heavily on environmental restoration and, more recently, compliance costs, both of which require substantial annual appropriations. This report emphasizes oversight issues associated with DOD restoration and compliance programs.

Environmental Restoration

Environmental restoration activities within the Department of Defense generally receive the most attention from Congress and other interested parties, although funding for environmental compliance now exceeds that for cleanup.

Restoration Process

Environmental restoration refers to the cleanup of past hazardous wastes at active and former military installations. (6) Affected installations fall into two general categories. First, the most contaminated of the department's sites, as determined by the Environmental Protection Agency (EPA), are included on the National Priorities List (NPL). (7) As with all facilities on the NPL, restoration procedures are mandated by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). Non-NPL facilities constitute a second category of DOD hazardous waste sites. For this larger segment of restoration sites, DOD does not report to the EPA, but rather to the states. Of the 1,769 DOD installations with sites requiring cleanup, 112 have sites on the NPL, 6% of the total. (8) For all military facilities, whether on the NPL or not, the restoration process at DOD involves three stages:

- **- Preliminary Assessment/Site Inspection (PA/IS).** An assessment of environmental quality is made at all DOD installations. DOD uses the PA/IS to determine whether or not remediation is needed at a given site. Some of the installations identified in the PA/IS are singled out for the National Priority List.
- **- Remedial Investigation/Feasibility Studies (RI/FS).** After identifying possible hazardous waste sites, DOD determines the extent of environmental damage and develops alternatives for action. For NPL sites, the RI/FS stage ends with a record of decision, as required by law. Public hearings and responses to comments follow, ultimately leading to the selection of a plan for action.
- **- Remedial Design/Remedial Action (RD/BA).** The alternative selected in the RI/FS phase is implemented, and site restoration begins.

No overall federal regulations mandate the order in which DOD restores sites. DOD policy has been first to fund cleanups where there is a legally binding penalty for inaction, such as meeting an EPA-required milestone, and then to use remaining funds to clean up sites for which there is no immediate legal requirement. For each installation, DOD and its regulators establish a timetable for completion. Compliance with these timetables often lags, however, when cost estimates climb and projected funding is not available. Recently, DOD has begun a program to assess the "relative risk" posed to public health and safety by contaminated sites in determining the order of cleanup (see below for a further discussion).

Regulatory and Community Interaction

Under CERCLA, federal agencies are required to enter into an agreement with the EPA for any site on the National Priority List. These Interagency Agreements coordinate regulatory action and oversight among EPA, the agency, and state governments. Proposed remedial action at NPL sites must be approved by the EPA. For non-NPL sites, cleanup falls under the jurisdiction of state agencies. To facilitate quicker and more efficient cleanup, DOD has developed the Defense-State Memoranda of Agreement (DSMOA) program. Under a DSMOA, a state provides oversight and compliance-monitoring services in return for reimbursement of up to one percent of DOD's cleanup cost at the site.

At former military sites, where DOD is no longer the occupant of the contaminated land, coordination with regulators and current owners is more complex. Questions of liability and origin of contamination must be resolved so that responsibility for cleanup can be assigned. Investigation and cleanup, conducted by the Army Corps of Engineers, are coordinated with the state, EPA, and present land owners.

DOD has a goal of establishing Restoration Advisory Boards (RABs) at all cleanup sites. RABs are composed of regulators, community representatives, and other stakeholders, and provide outlets for community involvement in the cleanup process.

Funding

In FY1984, Congress created the Environmental Restoration Defense (ER,D) appropriation, also known as the Defense Environmental Restoration Account (DERA). Initially, DERA was intended to finance centrally-managed cleanup activities. In FY1986, however, Congress granted DOD the authority to transfer funds from DERA to accounts managed by each of the military services to finance restoration efforts. The department requested $1.622 billion for DERA in FY1996, a decrease of 11% from the original FY1995 appropriation but an increase of 6.5% from FY1995's post-rescissions level. Congress appropriated $1.422 billion. The FY1996 request was intended to fund fully cleanup activities at all Class I (legally required) and Class II (legally required outside the fiscal year) sites. **Table 1** shows DERA funding by component for FY1994 to FY1997.

Base Closure

Bases slated for closure are subject to the same federal and state environmental laws as apply to active Department of Defense installations. As a result, DOD uses the same process for identifying contaminated sites on closing bases as it uses for is active facilities. The major policy difference for closing bases is simply the need to expedite cleanup and prepare facilities for civilian occupancy.

Table 1: Environmental Restoration, defense
(current year dollars in millions)

	FY 1994 Actual	FY 1995 Estimate	FY 1996 Appropriation
Army	627.6	473.4	447.3
Navy	407.7	471.2	421.4
Air Force	513.3	437.5	435.7
Formerly Used Defense Sites	322.7	328.7	252.0
Defense-Wide	83.7	69.6	65.8
Congressional Rescission		-300.0	
Congressional Appropriation			-200.0
TOTAL	1,965.0	1,481.5	1,422.2
Real Growth/Decline		-26.0%	-6.7%

Source: CRS calculations based on data provided by the Office of the Deputy Under Secretary of Defense (Environmental Security).

In 1992, Congress passed the *Community Environmental Response Facilitation Act* to address issues related specifically to environmental cleanup at closing bases. (9) Two of its major provisions were:

- **- Identification and transfer of clean parcels.** Allows base closure property to be transferred if it is identified as clean. Requires consultation with and notification of all interested parties; and
- **- Transfer of contaminated parcels.** Allows for the transfer of contaminated parcels provided that an approved remedy has been constructed and is operating or that adequate methods to protect

that an approved remedy has been constructed and is operating or that adequate methods to protect human health are in place. Requires the concurrence of the EPA, for NPL sites, and the states, for non-NPL sites.

In July 1993, President Clinton announced a new strategy for revitalizing communities affected by base closure. One part of the five-part plan specifically addressed the need to expedite environmental cleanup at closing bases. This Fast Track Cleanup program aims to:

- - establish cleanup teams of experts at closing bases;
- - provide effective community involvement;
- - make clean parcels available;
- - speed the National Environmental Policy Act (NEPA) process; and
- - correct indemnification language to clarify future liability for contamination.

So far, DOD has implemented new internal procedures to address the first four of these aims. Base Closure Teams (BCTs) have been established at each closing base, and community and regulatory participation is encouraged through RABs. The objective of making clean parcels available has been facilitated by the Community Environmental Response Facilitation Act (CERFA). CERFA calls for the identification and documentation within 18 months of all uncontaminated land undergoing closure. To speed the NEPA process, the fourth goal of the Fast Track Cleanup program, DOD has a goal to complete an Environmental Impact Statement at each closing base within 12 months of the community's submission of a final reuse plan.

Funding

Earlier, DOD initiated and is now nearing completion of three rounds of base realignments and closures -- BRAC I (1988), BRAC II (1991), and BRAC III (1993). A fourth set of base closures was approved in 1995. Prior to FY1991, environmental costs associated with base closure were incorporated into the DERA account. In FY1991, Congress established separate BRAC accounts -- one account for each set of closures -- through which all costs associated with closure, including cleanup costs, are financed. The funding profiles for BRAC I, BRAC II, and BRAC III are displayed in **Table 2.** DOD projects a decline in BRAC funding over the next several years, but costs resulting from the FY1995 base closure process, likely to be significant, are not included.

Table 2: BRAC Environmental Funding
(millions of constant FY1996 dollars)

	FY91 Actual	FY92 Actual	FY93 Actual	FY94 Actual	FY95 Estimate	FY96 Request
BRAC I	281.11	294.67	145.19	0.00	68.80	0.00
BRAC II	0.00	27.33	379.21	285.91	143.37	224.80
BRAC III	0.00	0.00	0.00	261.99	321.66	232.30
Transfers/ Supplementals	0.00	257.44	0.00	0.00	0.00	0.00
TOTAL	281.11	579.44	524.40	547.90	533.83	457.10
Real Growth		+106.1%	-9.5%	+4.5%	-2.6%	-14.4%

Source: CRS calculations based on: Department of Defense, *Operation and Maintenance Overview, FY1996/FY1997 Biennial Budget Estimates,* February 1995, and previous years.

Environmental Compliance

Whereas environmental restoration redresses problems caused by past activities, environmental compliance encompasses measures to bring current DOD operations into line with existing environmental standards. The Department of Defense is required to comply with all federal and state environmental regulations at its U.S. facilities. (10) Over 70 public laws directly affect operations at DOD installations, including the Clean Air Act, Clean Water Act, and the Resource Conservation and

DOD installations, including the Clean Air Act, Clean Water Act, and the Resource Conservation and Recovery Act (RCRA). (11) The 1976 RCRA legislation left questionable the law's applicability to federal facilities. Congress amended RCRA in 1992 with the Federal Facilities Compliance Act, unequivocally waiving the federal government's sovereign immunity from prosecution and penalties resulting from noncompliance with solid and hazardous waste laws.

Compliance Monitoring

The military's compliance with environmental standards is monitored both within DOD and by other governmental bodies. First, each service has an internal auditing structure for environmental compliance. Each major installation conducts an environmental compliance self-assessment on an annual basis, and an outside assessment is conducted every 3 years. This is intended to allow the military to avoid fines and outside intervention as well as affording it the opportunity to anticipate costs from new and future regulations. Second, the department's compliance is monitored by the EPA, the states, and local regulatory agencies. If DOD is found in violation of a compliance requirement, an enforcement action is written by the responsible regulatory agency. This is the first step in enforcing compliance, and DOD uses the number of new enforcement actions as one measure of the effectiveness of its program. In its recent annual report to Congress on compliance activities, DOD noted that new enforcement actions fell nearly 44% between FY1993 and FYl994. (12)

Funding

Compliance activities currently absorb more funding than any other environmental program in the Department of Defense -- a total of $2.2 billion was requested for FY1996. **Figure 2** displays a breakdown the compliance budget according to which laws determine funding requirements. (The "miscellaneous" category includes the Toxic Substances Control Act, the Marine Plastic Pollution Control Act, and other measures.) It is important to note that compliance costs are not provided through appropriations to a single budget account. Rather, funds for compliance projects come from many appropriations accounts, mostly from Operation and Maintenance (O&M). Estimates of total costs are built from the installation level up. Through the department's Planning, Programming, and Budgeting System (PPBS), installation commanders submit a funding request for projected compliance costs, which then is reviewed at each successive level of each service's programming hierarchy. Ultimately, the requests are reviewed in the Office of the Secretary of Defense. At the installation level, each service uses a statistical model to project compliance costs, and the services update data throughout the fiscal year. **Table 3** shows a breakdown of DOD compliance funding by component and account.

Figure 2

Pollution Prevention

Under Executive Order 12856, *Federal Compliance with Right-to Know Laws and Pollution Prevention Requirements* (1993) all federal facilities are subject to the same pollution prevention laws that regulate private sector organizations. Pollution prevention programs are aimed at averting contamination through materials management. Thus, while compliance activities attempt to control pollutants at their release point, pollution prevention programs attempt to reduce pollutants at their origin. Critical to this mission is the Department of Defense's incorporation of environmental standards into its vast acquisition process. Weapon system production, maintenance, and disposal account for about 80% of DOD's hazardous material generations. (13) Pollution prevention programs therefore aim to reduce, and wherever possible eliminate, requirements for hazardous materials. Because decisions about the material and process for a given system are determined by designers early in the development phase of the acquisition process, the main focus of the pollution prevention program is at the design phase.

In 1993, the DOD Inspector General found that in many cases, DOD failed to analyze the environmental impact of weapons programs, despite requirements for such analysis. (14) Acting on a recommendation of the Inspector General, DOD recently announced that the Deputy Under Secretary for Environmental Security would join the Defense Acquisition Board, giving environmental

Table 3: Environmental Compliance Funding

Table 3: Environmental Compliance Funding
(millions of FY1996 dollars)

	FY 1994 Actual	FY 1995 Estimate	FY 1996 Request
Army			
O&M	315.1	408.0	415.3
O&M, Reserve	28.4	40.7	35.8
O&M, National Guard	40.7	43.0	49.1
RDT&E	47.3	49.1	66.1
Reserve Personnel	0.1	1.2	1.3
Ammo. Procurement	7.6	8.2	10.1
Weapons & TCV Procurement	11.6	5.1	2.3
Military Construction	12.7	6.6	21.2
Defense Business Operations Fund	40.6	42.2	38.7
Family Housing	19.3	10.0	7.9
TOTAL	523.4	614.3	647.8
Navy			
O&M	284.4	327.7	385.6
O&M, Reserve	6.0	4.5	8.9
RDT&E	2.9	3.0	5.5
Other Procurement	27.3	73.2	108.9
Military Construction	145.3	85.9	115.3
Defense Business Operations Fund	213.9	211.3	158.0
TOTAL	679.8	705.6	782.2
Marine Corps			
O&M	70.7	80.8	129.7
O&M, Reserve	3.	2.9	2.9
Procurement	2.1	2.3	2.3
TOTAL	76.0	86.0	134.9
Air Force			
O&M	310.0	316.70	283.60
O&M, Reserve	11.8	18.90	12.130
O&M, National Guard	17.4	17.50	17.90
Aircraft Procurement	18.00	30.50	19.80
Missile Procurement	0.00	0.00	5.10
RDT&E	41.7	43.6	26.4
Military Personnel	26.40	19.3	28.3
Guard Personnel	0.0	0.7	0.9
Military Construction	152.1	108.4	68.0
Military Construction, Reserve	1.9	7.2	5.1
Military Construction, National Guard	67.0	56.9	17.0
Defense Business Operations Fund	0.0	0.0	16.6

Defense Business Operations Fund	0.0	0.0	16.6
Family Housing Construction	4.7	8.8	11.7
Family Housing Operations	27.0	15.5	15.0
TOTAL	678.0	643.9	527.7
Defense-Wide			
O&M	38.8	26.8	27.4
Procurement	0.4	0.40	0.2
RDT&E	2.8	1.7	3.0
Transaction Fund	0.0	3.0	9.4
Defense Business Operations Fund	82.5	77.4	76.6
TOTAL	124.5	109.4	116.6
GRAND TOTAL	2,081.7	2,159.2	2,209.2
Real Growth		+3.7&	+2.3%

Source: CRS calculations based on DOD data.

considerations greater influence in the development and deployment of weapon systems. (15) Further, in August 1994, the department initiated a Pollution Prevention Strategy to highlight the need to incorporate preventive environmental practices in acquisition and operating procedures. In testimony to Congress, the Deputy Under Secretary of Defense (Environment), explained the rationale for DOD's emphasis on pollution prevention as follows:

> It is becoming increasingly clear that pollution prevention is critical to America's future competitiveness both in the defense industry and in the global economy. Investing in preventive measures is the best way to reduce risks to health and the environment, to reduce costs and future liabilities, to reduce the use of raw materials, and to provide a new economic base for U.S. competitiveness. (16)

Major initiatives at the installation level include hazardous material reduction and recycling, municipal solid waste recycling, the Tidewater Installation Pollution Prevention Program in Virginia, materials management, and alternative fueled vehicles. In the acquisition process, DOD has focused pollution prevention on contract management and on ozone depleting substances. DOD has many anecdotal examples of cost savings achieved through the application of pollution prevention measures. (17)

Funding

Since FY1993 the Department of Defense has separately identified pollution prevention in its budget documentation -- pollution prevention was previously incorporated it compliance activities. **Table 4** displays the funding allocated to pollution prevention over the past four years. Funding for the program is spread among the department's major accounts, principally O&M and procurement. While DOD has emphasized the role of pollution prevention in recent years, funding for the program remains well below that of restoration and compliance: DOD's FY1996 request of $335.5 million is approximately one-fifth the size of the restoration request and a little more than one-seventh the size of requested compliance funding.

Environmental Technology

The environmental technology program addresses two aspects of DOD's environmental policy. First, DOD uses research and development (R&D) funds to explore new technologies in restoration, compliance, and pollution prevention, to make the programs more efficient. Second, it studies global environmental threats, including ozone depletion and climate change, under the congressionally mandated Strategic Environmental Research and Development Program (SERDP).

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Table 4: DOD Pollution Prevention
(millions of FY1996 dollars)

	FY1993 Actual	FY1994 Actual	FY1995 Estimate	FY1996 Request
Amount	296.33	355.53	394.37	335.50
Real Growth		+20.0%	+10.9%	-14.9%

Source: CRS calculations based on U.S. Department of Defense data.

Most environmental R&D efforts in the Department of Defense are aimed at developing technology or improving existing technology. To determine where R&D funds are best spent, the department has implemented the Environmental Technology Requirements Strategy (ETRS). The ETRS evaluates user needs so that the technology community can fashion solutions accordingly. A second defense-wide program, new in FY1995, is the Environmental Security Technology Certification Program (ESTCP). The purpose of the ESTCP is to "demonstrate and validate . . . mature environmental research and development projects." ESTCP will concentrate on technologies that are expected to produce tangible cost savings and efficiencies within five years and will also emphasize technologies that are applicable to both the public and private sectors. (18)

The department's mission to study global environmental problems is shared with the Department of Energy and the EPA, all three of which are included in the SERDP legislation. SERDP's broad mandate, in the words of one of its original sponsors, is "to develop technologies and data for environmental restoration, waste minimization, hazardous material substitution, global environmental research, including ozone depletion and climate change, and other environmental concerns such as energy conversion and conservation." (19) DOD was considered uniquely capable in this field because of its global reach and intelligence gathering assets. The program is specifically aimed at promoting technology transfer and dual-use technology development between the military and the private sector.

Funding

As **Table 5** demonstrates, FY1993 saw a tremendous rise in funding for environmental technology. The increase, however, is due more to DOD's reporting practices than any new infusion of dollars. Prior to FY1993, no environmental technology funding was separately tracked in DOD except SERDP, which has had a congressionally-established line-item in the budget since FY1991. Since its FY1994 peak, environmental technology funding has declined, but DOD expects funding to begin rising again after FY1996. The majority of funds spent on environmental technology programs come in three defense-wide accounts (SERDP, Advanced Research Projects Agency (ARPA) environmental programs, and ESTCP), with the remainder funded through the services' individual accounts. In DOD's FY1996 budget request, environmental technology constitutes about 4% of the total environmental budget.

Table 5: DOD Environmental Technology Program
(millions of FY1996 dollars)

	Actual 1991	Actual 1992	Actual 1993	Actual FY 1994	Estimate FY 1995	Request FY 1996
Army	1/	1/	98.82	96.63	81.85	32.90
Navy	1/	1/	72.51	80.43	62.59	76.80
Marine Corps	1/	1/	1.30	0.00	0.00	0.00
Air Force	1/	1/	18.44	11.11	6.28	11.30
Defense-Wide			234.73			
ARPA	1/	1/	2/	82.66	39.64	24.10

ESTCP	n/a	n/a	n/a	0.00	45.20	14.90
SERDP	87.79	77.54	2/	163.10	56.73	58.40
TOTAL	87.79	77.54	425.79	433.95	292.29	218.40
Percent Growth		-12%	+450%	+2%	-33%	-25%

Source: CRS, calculations based on department of Defense data.

Notes:

1/Not separately tracked until FY1993.
2/Defense-wide funding not broken-out by program

Conservation

DOD's conservation activities address the natural and cultural resources of the 25 million acres of public lands the department administers, including protected wetlands, over 300 threatened and endangered species, over 150 historical sites, and more than 100,000 archeological sites. (20) A large portion of DOD's conservation effort is carried out by the services to comply with environmental statutes. (21) These efforts include developing natural resource management plans for all bases and making inventories of wetlands and other resources.

The Legacy Resource Management Program supports conservation projects that are not mandated by law, emphasizing public awareness, preservation, restoration and management, and data collection. Congressional support for defense conservation was underlined in the Senate Appropriations Committee's report on the FY1993 Defense Appropriations Bill, which declared that DOD's "resource management program [is] a coequal environmental pillar of [DOD], equivalent in every respect to the Defense Environmental Restoration Program." (22)

Funding

As with the environmental technology program, conservation programs were not tracked in DOD until FY1993. Between FY1991 and FY1993, DOD kept track only of the congressionally-mandated Legacy account; the subsequent 81% growth in the program between FY1992 to FY1993 is explained largely by improved tracking of conservation spending. **Table 6** displays funding for DOD conservation programs since FY1991.

ENVIRONMENTAL FUNDING TRENDS

Together, funding for the six major programs discussed above constitute the Department of Defense's environmental budget. That budget has grown tremendously since the mid-1980s, and particularly during the first half of this decade. During the Bush Administration, funding for DOD's environmental activities tripled between 1990 and 1993. Over the same period, the defense budget shrank 17% in real terms. To a lesser extent, the Clinton Administration followed suit, with a FY1994 request 3% higher than that allotted in FY1993, while total DOD budget authority fell 8%. The result of these divergent trends is that the share of DOD dollars allotted to environmental programs grew from about .07% in FY1985 to 2% in FY1994. Since FY1994, the budget for environmental programs has declined slightly, stabilizing this growth trend. **Figure 3** displays the growth of environmental funding as a share of the total defense budget over the past thirteen years; **Figure 4** shows the dollar-values and programs associated with that climb. (23)

Table 6: DOD Conservation Programs
(millions of FY1996 dollars)

	Actual FY 1991	Actual FY 1992	Actual FY 1993	Actual FY 1994	Estimate FY 1995	Request FY 1996

Army	1/	1/	45.20	36.88	48.06	65.30
Navy	1/	1/	8.25	6.73	11.76	18.00
Marine Corps	1/	1/	1.57	1.62	1.75	1.40
Air Force	1/	1/	21.26	0.00	12.52	49.10
Defense-Wide			46.37			
O&M			2/	1.61	0.87	0.70
O&M, Legacy	8.77	22.51	2/	46.58	47.69	10.00
DBOF			2/	0.09	0.58	0.50
TOTAL	8.77	22.51	122.66	93.50	123.25	145.00
Real Growth		+61.0%	+81.7%	-31.2%	+24.1%	+15.0%

Source: CRS calculations based on U.S. Department of Defense data.

Notes:

1/ Not separately tracked until FY1993.
2/Defense-wide funding not broken-out by program

Figure 3

This growth in DOD's environmental budget is attributable to several factors. First, cleanup costs have sky-rocketed since the 1980 founding of Superfund. These cost increases are, in large part, the result of the natural evolution of the restoration process. DOD began its cleanup program by assessing contamination at all of its facilities. These initial assessments, at relatively low cost, led to the discovery and further exploration of sites, adding progressively to the cleanup price tag. Recently, DOD has begun the cleanup phase on a large-scale, further propelling program costs upward.

Second, compliance costs, as distinct from cleanup costs, have climbed dramatically, as the scope of federal an state regulation has expanded. Moreover, DOD has taken pains to identify environmental compliance costs that previously were handled as routine maintenance, thus artificially inflating the growth rate of the environmental budget. Congressional reporting requirements for compliance have further spurred funding increases in this area to ensure fulfillment of statutory obligations. Third, base closures have added substantially to the environmental budget, since Congress requires DOD to speed remediation at closing facilities to allow for timely transfer. Finally, Congress has created several DOD environmental accounts beyond DOD's internally-initiated programs.

Figure 4

CONGRESSIONAL PERSPECTIVES

In the last 15 years, Congress has substantially increased its oversight of DOD environmental programs. Congressional action is reflected in four areas:

- - Establishment of new programs within DOD;
- - Changes to the Administration's defense environmental funding requests;
- - Changes and additions to the statutes governing DOD environmental activity; and
- - Additional DOD environmental reporting requirements to Congress.

During the 1980s and into the 1990s, Congress sought to encourage greater attention to environmental programs within DOD. To this end, its actions expanded DOD's program, both in scope and in cost. In 1990, Congress established three new environmental funds within DOD: the Base Realignment and Closure (BRAC) Account, the Strategic Environmental Research and Development Program (SERDP), and the Legacy Resource Protection Program, providing almost $395 million (current year dollars) to fund them. (24)

fund them. (24)

Support for these new programs continued through FY1995. Since 1991, however, Congress has cast a more critical eye on the Defense Environmental Restoration Account (DERA). While DERA continued to experience real growth through FY1994, Congress began to appropriate funds below the amount requested -- in previous years, it had generally appropriated above the requested level. The largest factor contributing to Congress's dissatisfaction was a perception among many Members that DOD was not making good use of the money. Too many studies and too few cleanup actions were cited as evidence that DOD was mismanaging DERA. As the Senate Appropriations Committee noted in its FY1993 report, "the American public is becoming increasingly impatient with the slow and cumbersome manner in which the department has approached the problem of base cleanup." (25) As **Table 7** illustrates, Congress continued to add funds for other DOD environmental activities, such as SERDP and Legacy, but in every year from FY1992 through FY1996, Congress cut DERA below the level requested. (26)

Table 7: Congressional Action on DOD Requests for Selected Environmental Programs
(current year dollars in millions)

	DERA	SERDP	Legacy
FY 1992			
Request	1,252	0	0
Appropriation	1,183	50	25
Difference	-69	+50	+25
Percent Difference	-6%	N/A	N/A
FY 1993			
Request	1,513	0	10
Appropriation	1,199	180	50
Difference	-314	180	+40
Percent Difference	-21%	N/A	+400%
FY 1994			
Request	2,309	100	10
Appropriation	1,962	160	50
Difference	-347	+60	+40
Percent Difference	-15%	+60%	+400%
FY 1995			
Request	2,181	112	10
Appropriation	1,781	62	50
Difference	-400	-50	+40
Percent Difference	-18%	-45%	+400%
FY 1996			
Request	1,622	58	10
Appropriation	1,422	58	N/A
Difference	-200	0	N/A
Percent Difference	-12%	0%	N/A

Sources: annual Defense appropriations Conference deports.

ISSUES IN THE 104TH CONGRESS

ISSUES IN THE 104TH CONGRESS

In the 104th Congress, concern about DOD environmental programs has been heightened by distress over the amount of money going to so-called "non-defense" activities in the defense budget. (27) Spurred by concern about constraints on other defense programs, some Members are determined to reduce the amount of defense dollars spent on environmental activities. The final FY1996 defense authorization and appropriations bills reduced requested environmental restoration funding by $200 million, to $1,422 million. These cuts followed on the heels of a rescission of funds from the FY1995 restoration account last spring. A rebellion against some government regulations looms large as well. The *Job Creation and Wage Enhancement Act of 1995* (H.R. 9) and the *Comprehensive Regulatory Reform Act of 1995 (S.* 343) might significantly affect the way DOD and other federal agencies implement environmental activities. Finally, the 104th Congress is likely to consider Superfund reform in the second session. The resulting bill may contain several provisions designed by DOD to contain costs and speed progress in its cleanup program.

Congressional Action on DOD Environmental Funding

FY1995 Rescissions. In February 1995, the Administration submitted a request for defense supplemental FY1995 appropriations totalling over $2.5 billion. The funds were to pay the costs of contingency operations undertaken by the military over the previous year, including those in Haiti, Bosnia, and Southwest Asia (Iraq and Kuwait). While Congress ultimately approved the total request, even adding some funds not requested by the department, it rescinded an equal amount from various DOD and non-DOD programs. (28) Among the rescissions, DERA was reduced by $300 million, 17% of its original appropriation, one of the largest reductions. As **Figure 5** shows, DOD spread the reduction fairly evenly among the study, cleanup, and overhead phases of the restoration process, with a slight shift from the percentage of funds dedicated to actual cleanup to the percentage spent on administration and overhead.

FY1996 Defense Authorization and Appropriations. The House version of the FY1996 National Defense Authorization Act, H.R. 1530, initially passed in May 1995, authorized DERA funding of $1,422 million, $200 million below DOD's budget request. The issue of "non-defense" items in the defense budget particularly resonated in House consideration of the legislation. In its report on the bill, the House National Security Committee cited the likelihood of continuing downward pressure on DERA funding and encouraged the department to "optimize cleanup efforts and minimize overhead and funding for studies." (29) The report makes clear the House's concern not only about "non-traditional" defense spending, but also about the amount of DERA money allocated to studies and overhead. The House-passed version of the annual defense appropriations bill (H.R. 2126) followed the authorization measure.

Figure 5

The Senate differed markedly from the House both in its approach to restoration programs and to other DOD environmental activities. First, Senate authorizers approved most of the Administration's request for DERA, authorizing $20.4 million less than the $1.622 billion desired. The Senate Armed Services Committee (SASC), moreover, stipulated exactly how the $20.4 million should be cut. Echoing House concern about the amount of DERA funds spent on administrative costs, the Senate reduced the request by $1 million and mandated that no more than $2.9 million of FY1997 DERA funds could be spent for the Office of the Deputy Under Secretary of Defense (Environmental Security). The Senate also cut the amount of DERA funds that could be spent on Defense-State Memoranda of Agreement (DSMOAs), through which DOD reimburses states for cleanup oversight, from $20.9 million to $5 million. In its report (S.Rept. 104-112), SASC stated that the cut reflected a conviction that, since states were undertaking the regulatory activity in compliance with federal and state laws, their oversight activities should be funded through federal and state environmental sources rather than DOD. In addition, the Senate lowered the limit on DERA and BRAC funds that could be spent on Restoration Advisory Boards (RABs) from $7.5 million to $4 million, and excluded O&M accounts from being used to fund administrative costs. The Senate also passed a floor amendment, offered by Sen. Johnston, that relieves federal employees from civil or criminal liability resulting from the failure to comply with environmental cleanup requirements under the Solid Waste Disposal/Resource Conservation and

environmental cleanup requirements under the Solid Waste Disposal/Resource Conservation and Recovery Act, Superfund, or analogous federal, state, or local laws, if the noncompliance results from a lack of funds. This amendment responded to DOD concerns that inadequate restoration funding levels will result in fines against its employees.

Second, Senate authorizers turned their attention to the collectively larger and more difficult to manage compliance, pollution prevention, and conservation budgets (known collectively as Environmental Quality). The SASC report on the authorization bill required DOD to submit a report to Congress detailing compliance funding and personnel levels by installation. It further required the funding projections to identify amounts allocated to meet Class I (legally required within the fiscal year), Class II (legally required, but outside the fiscal year), Class III (not yet legally required), and recurring requirements.

Third, the Senate reversed its establishment of a separate Legacy Resource Management line-item, devolving the program into the broader Defense Environmental Conservation Program, which is funded from various parts of the services' budgets. Legacy was created by Congress out of a desire to fund beneficial but not legally-required conservation programs. The Senate language reduced the visibility of Legacy funding and, consequently, likely will lead to lower funding for a program that had received additional money from congressional appropriators every year since its inception.

The Senate defense appropriations bill, S. 1087 took yet another approach to defense environmental funding. First, Senate appropriators reduced funding for DERA by $135 million, to $1.49 billion, stipulating the amounts to be allocated to each service. While the measure retains DERA as a centrally-managed account under the Office of the Secretary of Defense, it shifts direct funding responsibility to components, who would be required to budget for cleanup costs within their pre-determined amounts. In their report language, Senate appropriators also said that the $1.49 billion funding level "provides a stable program through the year 2000," meaning that DOD should budget at that level for the next five years. Both of these actions addressed specific concerns of the Department of Defense (see **Issues for Congressional Oversight** below). Like the House bills, the Senate appropriations bill did not alter funding requests for any DOD environmental activities besides DERA.

Final action on defense environmental programs in the authorization and appropriations bills was as follows:

- - Congress authorized and appropriated $1,422 million for DERA, as in the House-passed bills, and allocated funding to each of the services, as in the Senate appropriations measure, but allowed amounts not needed by the services to be transferred back to the central account;
- - As in the Senate bill, the authorization conference agreement prohibited DERA funds from being used to reimburse states for regulatory activities and limited the amount that may be paid to states for supporting cleanup to $10 million (though the Secretary of Defense may waive this limitation);
- - The authorization conference agreement required DOD to reduce the amount for administration, support, studies, and investigations to no more than 20% of DERA funding.

DOD is also expected to comply with SASC requirements for detailed reporting on compliance funding.

The final funding level for DERA continues the marked decline in DERA funding that began with the April 1995 rescissions -- the FY1996 level is 6.6% below the post-rescission FY1995 amount and 31% below FY1994's peak. The effects of these cumulative cuts are unclear as yet. Both the FY1995 and the FY1996 requests funded all projects at sites that were determined by the EPA to be Class I or Class II. Only Class I requirements must be met within the fiscal year to avoid penalties; Class II projects are those where regulator penalties and agreements are imminent, but not within the fiscal year. The congressional cuts will allow DOD to continue funding Class I requirements in FY1995 and FY1996, but not all Class II requirements. Most likely, the legislation will allow DOD to meet all of its legally-required agreements, but not to expand its remediation activities beyond that.

Regulatory Reform

As part of its Contract with America, the Republican majority in the House has made regulatory reform

As part of its Contract with America, the Republican majority in the House has made regulatory reform a high priority. (30) Proposed reforms could indirectly affect DOD environmental programs by restricting federal regulators' ability to impose and enforce regulations and directly affect DOD implementation of site restoration.

The House of Representatives' regulatory reform bill was included in the *Job Creation and Wage Enhancement Act of 1995* (H.R. 9), which passed the House on March 3, 1995. The bill's language requires federal regulators to adhere to specified principles in calculating or describing risks for environmental restoration and waste management decisions. The bill also requires all federal agencies conducting environmental cleanups of $5 million or more to provide detailed risk and cost-benefit analyses for such actions. Results of these cost-beneflt analyses would be made available to the public through the Federal Register or other means. Finally, the bill requires cost-beneflt analysis for any rule expected to result in an annual economic effect of $50 million or more, though this provision is unlikely to have a major affect on DOD since the department issues very few major rules.

The Senate's regulatory reform legislation, the *Comprehensive Regulatory Reform Act of 1995 (S.* 343), is in many ways similar to H.R. 9. The bill's cost-benefit provisions apply to environmental cleanup projects costing $10 million or more, though a provision exempting "military affairs" from some of the bill's provisions may limit the measure's applicability to DOD. On July 20, after three failed attempts to reach cloture, S. 343 was indefinitely withdrawn by the Majority Leader. It is unclear whether S. 343 or a substitute will be considered in the 1996 session.

For its part, DOD agrees that risk assessment and cost benefit analyses are important elements of an effective environmental cleanup program. DOD has, in fact, proposed changes to CERCLA that would enhance the department's ability to assign priority to sites based on a risk and cost tradeoff (see CERCLA Reform below). DOD argues, however, that attempting to quantify the benefits of cleanup, as required by the House bill, is not feasible. DOD feels that risk-assessment, as it pertains to environmental cleanup, should be addressed in the context of CERCLA reform or handled administratively within DoD. (31)

Superfund Reform

In the final days of the 103rd Congress, bills to reform the 1980 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) languished in Congress amid disputes over restoration standards and liability issues. Since CERCLA authority expired at the end of 1994, and authority to collect federal taxes to support the program lapsed in 1995, Superfund reauthorization remains an urgent issue for the 104th Congress.

With the shift in power on Capitol Hill, the legislation Congress has been considering in 1995 and 1996 looks little like the Superfund renewal measure drafted by the Administration in 1994. A key issue in the current debate concerns retroactive liability provisions that hold parties accountable for pollution due to waste disposal prior to passage of the Superfund law in 1980. Although members of the majority signaled that they would propose repeal of retroactive liability, fiscal constraints have resulted in proposals that would accomplish only partial repeal. (32) Aside from the retroactive liability provisions, the reauthorization bills under consideration in both Houses (H.R. 2500 and S. 1285) make major changes in CERCLA and address several issues of concern to DOD.

ISSUES FOR CONGRESSIONAL OVERSIGHT

For most of the past 20 years, Congress has encouraged the Department of Defense to deal aggressively with its environmental responsibilities. The 104th Congress has focused on the need to limit the costs of environmental regulation and associated activities. Given this goal, oversight -- the means by which Congress can most effectively guide DOD environmental programs and control costs -- becomes crucial. Controlling the costs of DOD's programs without endangering public health and the environment, and without hampering efforts to make the process more efficient, requires an understanding of DOD programs, environmental costs, and alternatives for change. Several avenues of congressional action on DOD environmental programs are likely to be considered by Congress. This section examines six such areas:

- - Decreasing DERA funding;
- - Limiting the share of DERA funds spent on studies;
- - Revising DERA procedures and amending environmental laws (including Superfund) to improve DERA efficiency;
- - Capping compliance funding;
- - Centralizing compliance, pollution prevention, environmental research and technology, and conservation programs into single, line-item accounts; and
- - Devolving responsibility for environmental restoration away from the Office of the Secretary of Defense to the military services.

PROPOSALS RELATED TO RESTORATION FUNDING

Congressional oversight of DOD environmental programs historically has concentrated on restoration funding. Several reasons for this exist. First, restoration efforts directly affect communities surrounding military sites and the inheritors of closing sites. Second, cleanup efforts often involve contractual agreements between DOD and regulators that define the restoration schedule. DOD, thus, has an incentive to restore sites according to the terms of its agreements to avoid legal penalties and maintain good relations with regulators and local stakeholders. Third, and perhaps most importantly, the 1984 establishment of an environmental restoration line item and the 1990 establishment of Base Realignment and Closure accounts in the DOD budget created the most accessible way for Congress to influence the department's environmental program.

Should Congress Decrease DERA Funding?

As in the House's *FY1996 National Defense Authorization Act,* some Members believe a decrement to the DERA budget is both inevitable and an effective way to ensure DOD funds only those cleanups necessary to comply with regulations. In recent years, DOD's practice has been to submit budget requests which fully fund Class I (legally required milestone within the fiscal year) and Class II (legally required milestone outside the fiscal year) restorations. With reductions in the DERA budget, including the FY1995 rescissions and the FY1996 cuts from the request, Class I sites alone are certain to be funded.

Critics of this approach argue that decrements to the DERA account only reduce the efficiency of the program, increase long-term costs, and delay cleanups. For example, some problems dealt with by Class II projects, such as groundwater contamination, may worsen over time and therefore become more expensive to remediate. DOD also points out that it often undertakes Class II projects adjacent to Class I sites to gain efficiencies of scale. Finally, DOD argues that "off the top" cuts in DERA conceivably could drive up the percentage of funds spent on studies relative to cleanup. With many studies required by DOD agreements with regulators, the department will continue to give them funding priority to avoid legal action. Critics of DERA cuts argue that actual cleanup thus would suffer disproportionately.

DOD environmental officials also argue that a stable DERA funding level is the best means of ensuring timely, low-cost cleanup. (33) DOD contends that stable funding in the multi-year, contract-driven restoration process allows the department to plan for and execute cleanup at lowest cost and with greater regulatory and community support. In the FY1996-FY2001 Future Years Defense Program (FYDP), the Secretary of Defense has set funding for DERA at $1.6 billion per year. DOD believes that off-the-top reductions in DERA that do not take into account the need for such stability ultimately undermine its attempts to control costs and complete restorations.

Notably, the committee report on the FY1996 Senate defense appropriations bill (S.Rept. 104-124) supported DOD's position on stable funding. The bill provided only slightly less than the Administration wanted ($1.49 billion compared to the $1.62 billion request), and the committee report argued strongly for maintaining that funding level through FY2000. This position was directly odds with House authorizers, who warned DOD to expect further funding reductions in DERA over the coming years.

Should Congress Limit Funding for DERA Studies?

The funding of studies and assessments for potential cleanup sites, as well as overhead costs, has been a point of congressional concern for several years. Indeed, as noted above, the FY1996 defense authorization bill (P.L. 104-106) placed a cap of 20% on the share of the DERA budget that can be spent on studies and administration. Since DERA's inception in 1984, DOD has spent considerably more money studying potential sites than it has in actual cleanup. **Figure 6** shows the trend in such allocations from FY1992 through the Administration's request for FY1996. As the graph illustrates, the study phase of cleanup is complete at most DOD sites, and the percentage of DERA funds allocated to actual cleanup is increasing. Nevertheless, some Members believe that a ceiling should be placed on study and overhead costs to ensure that the majority of DERA funds are spent on actual cleanup.

Figure 6

DOD claims that study costs have been so great for two reasons: (1) studies are legally-required, and (2) studies may reduce cleanup costs. Whether a site is on the National Priorities List or not, the EPA and states require DOD to perform certain assessments to determine the extent of contamination, possible remediation strategies, and a timetable for remediation. DOD contends that a congressional cap on studies and assessments that did not fully fund these legal requirements would cause the department to be out of compliance with existing laws and subject to fines from regulators. The second reason DOD says it pursues studies is that they sometimes result in the elimination, reduction, or deferral of cleanup costs. As Air Force Deputy Assistant Secretary Thomas McCall recently told Congress, "our studies gave us the data we needed to demonstrate to regulators that it was safe to close out 1,184 of our approximately 4,100 sites on active installations without any expensive cleanup projects." (34) Opponents of a congressional cap on studies argue that it might ultimately cost the department more money by removing a mechanism for determining when sites are not in need of cleanup.

Possible alternatives to capping study spending exist. For instance, Congress could examine how DERA study money has been used thus far. Some relevant questions Congress might ask include:

- - Has the money gone to meet milestones agreed to with regulators?
- - Were contractors timely in providing services to DOD?
- - Were services provided at a reasonable, market price?
- - Are there efficiencies yet to be realized in the assessment process that would still allow DOD to meet its legal obligations?
- - Have lessons been learned from earlier experiences that will reduce future study costs?

With answers to these questions, Congress may be able to isolate and better address inefficiencies in the program. This might lead to a series of reforms that facilitate more effective operation in the future. Already DOD has undertaken one reform aimed at reducing the need for studies. By standardizing a series of generic remedies, DOD hopes to shorten significantly the time needed to complete the Remedial Investigation/Feasibility Study phase of restoration. Congress may wish to evaluate the effectiveness of generic remedies and similar proposals and, where necessary, enact changes in law to create a preference for generic remedies.

Congress also could lessen the amount of funds spent on studies by reducing the legal requirements for such assessments. For instance, at NPL sites, DOD enters into Federal Facility Agreements with regulators to decide how restoration will proceed. These agreements with the EPA commit DOD to complete contamination assessments. (35) Congress could legislate lesser study requirements under these agreements. A potential drawback to this approach, argues DOD, is that studies and assessments sometimes help it avoid unnecessary cleanups, actually reducing long-term costs. A further drawback would be the perception that federal facilities are held to lower standards than those applied to the private sector.

Should Congress Take Steps to Improve Restoration Efficiency?

Both Congress and DOD appear to agree on the importance of pursuing measures to ensure that cleanup proceeds quickly, effectively, and as inexpensively as possible. Two sets of reforms are being considered in DOD and in Congress: 1) reforms to the DERA budgeting and site prioritization process, 2) changes

in DOD and in Congress: 1) reforms to the DERA budgeting and site prioritization process, 2) changes to the Superfund statute.

Budgeting and Prioritization Reforms

DOD recently has begun using an assessment of relative risk to determine site restoration priorities. The department believes that its long-standing practice of funding projects based on their legal requirement (Class I or Class II) has resulted from stringent oversight by regulators which has fed on itself. Officials argue that this has fostered ever more oversight, as EPA and the states have tried to ensure cleanup at as many sites as possible. The resulting regulatory cycle does not directly correlate funding for a site with the relative risk to human health and the environment posed by that site; rather, it spreads funding out to meet DOD's extensive legal requirements. (36) DOD contends that prioritization based on relative risk would eliminate this discrepancy, categorizing each site by its effect on human health and the environment: high, medium, and low risk.

A related reform, zero-based budgeting, was suggested by the Congressional Budget Office (CBO) in a January 1995 report. Zero-based budgeting requires an agency to fund projects, within a pre-prescribed funding level, based on their priority. CBO contends that a strategy of zero-based budgeting would force the department to set priorities among its competing programs rather than relying on a funding level adequate to meet all of DOD's extensive environmental needs. The report explains:

> Applying a zero-based budgeting approach that ranks environmental programs and projects according to priority could ensure that the cleanup program met its most pressing requirements while remaining within budgetary constraints. Once DOD completed its ranking of programs and projects, the department would fund the most important cleanup tasks first, ensuring progress for those sites in accordance with negotiated standards and schedules. (37)

Environmental advocates complain that both relative risk and zero-based budgeting potentially could reduce the overall cleanup effort, by removing pressure to restore as many sites as possible. They also contend that such actions may give the green light to reduce DERA's funding level further. In addition, both proposals reduce the role of regulators and stakeholders. One outcome might be strained relations with EPA, the states, and local communities.

Superfund Reforms

Superfund reauthorization bills now under consideration include provisions aimed at increasing the speed and efficiency of cleanup at NPL sites. DOD has proposed several changes to Superfund, all aimed at reducing costs and speeding restorations covered by the law. Five major proposals are reviewed below:

- - List only contaminated areas at federal facilities on the NPL rather than the entire facility;
- - Incorporate cost effectiveness and future land use considerations in selecting remedies;
- - Permit temporary remediations in cases where promising technologies are under development;
- - Facilitate transfers of closing base property before remediation is complete; and
- - Clarify jurisdictional lines between the states and the EPA. (38)

NPL Listing. At present, EPA lists entire federal facilities on the NPL rather than only the contaminated portions. In contrast, for private companies, only contaminated parcels are identified on the NPL. The result for DOD is that, often, lesser contaminated sites located on the same installation as NPL sites are subjected to two regulators, EPA and the state. DOD believes that this dual oversight increases its costs of cleanup, undermines relations among the state, EPA, and the department, and can cause delays in cleanup of new NPL sites being "transferred" from state authority to EPA. To solve this dilemma, DOD would like CERCLA to be amended so that only contaminated portions of a facility are listed on the NPL and to allow EPA to defer listing a site if state oversight is already in place.

Remedy Selection. Along with many other critics of the current Superfund statute, DOD believes that remedy selection is skewed toward high cost, high protection solutions. While current regulations require regulators to consider cost-effectiveness, in DOD's view, the cost-effectiveness criterion is

require regulators to consider cost-effectiveness, in DOD's view, the cost-effectiveness criterion is overridden by requirements for permanent remediation and treatment standards. DOD, therefore, seeks to have the revised Superfund package include cost-effectiveness as a statutory remedy selection requirement leather than remain simply a regulatory criterion.

A related concern is that the preference for permanent remediation and treatment standards are applied equally to low and high concentration areas, requiring extensive cleanup -- including, for example, excavation and burning of large land areas -- regardless of a site's relative risk. DOD would seek to limit preference for permanence and treatment standards to high concentration waste areas and use risk-based ranking to determine priorities in remediation.

Perhaps the biggest impediment to timely cleanup caused by the current process of selecting remedies is the failure to incorporate future land use into evaluations. DOD and other federal agencies believe the universal application of remedies, without consideration of how the land in question will be used after ration, not only slows the cleanup process, it also produces inefficiencies. If, for instance, an area is to be designated as a wildlife sanctuary, then a strategy that requires the land to be bulldozed to remove unexploded ordinance might disrupt the habitat of the very animals the future land owners wish to protect. A more common problem is the application of residential groundwater treatment standards to areas that will be used for industrial purposes. The Administration believes any Superfund reform legislation should require future land use to be considered in assessing risks to the environment and in selecting remedies.

Temporary Remediation. DOD believes that its environmental research and technology efforts have great potential to reduce the costs of environmental restoration. By investing in new and emerging technologies that are more effective, future remediations might take place more quickly and at less expense to the taxpayer. DOD has proposed that the CERCLA reform legislation provide authority to defer remedial action in the short-term, provided contamination can be contained, to await promising technology under development.

Base Closure and Realignment. Due to the desire to transfer closing base property to new owners as quickly as possible, CERCLA's restrictions pose special problems for contaminated BRAC sites. DOD has identified three problems it finds particularly troublesome. First, any area where hazardous materials have been stored is automatically considered contaminated. By this standard, notes DUSD (Environment) Goodman, base residences where home-heating oil has been stored would be considered contaminated. (39) DOD would like CERCLA to require evidence of contamination release before an area is considered in need of remediation. Second, DOD is not always able to lease property during remediation if litigation is pending. CERCLA could include a provision for short-term leases during cleanup. Third, a similar problem is that closed land, requiring cleanup, cannot be transferred until an environmental remedy is in place and operating. As with leases, DOD wishes to transfer contaminated parcels while cleanup measures are being implemented.

Regulator Issues. Federal agencies often are beholden to two regulators, the state and the EPA, under two separate statutes, RCRA and CERCLA. Not surprisingly, the two regulators often apply conflicting requirements and the two laws are sometimes in direct contradiction. At the very least, the need to deal with two sets of regulators and regulations greatly complicates the cleanup process, imposing greater study and paperwork requirements and duplicative negotiations. Clarification of the jurisdictional lines between RCRA and CERCLA is one of DOD's major goals for CERCLA reform.

Each of these proposals is based on DOD's experience with Superfund and related laws over the past fifteen years. All five changes would strengthen DOD control over cleanup priorities and remediation strategy. Most of the Superfund changes that DOD endorses, however, would affect cleanup standards and procedures applied to the nation as a whole, and some of these measures are extremely controversial. Whether, and how, to consider future land use in establishing cleanup standards, for example, reaches to the fundamental issue, "How clean is clean?" In general, DOD has supported reforms that some critics of environmental regulations believe to be feeble but which some environmentalists fear will erode the nation's commitment to a healthy environment.

OTHER PROPOSALS FOR LIMITING COSTS

OTHER PROPOSALS FOR LIMITING COSTS

Should Congress Place a Cap on Compliance Funding?

After many years of congressional interest in DERA, attention is now beginning to shift to DOD's largest environmental program, compliance. The Senate Armed Services Committee's inclusion of a reporting requirement for compliance -- specifically its desire to find out what compliance funds are spent on Class I versus Class II functions -- signals heightened scrutiny of compliance budgeting. Presumably, Congress wishes to ensure that compliance funds included in service O&M accounts are used for that purpose alone, that compliance projects are not a for mask programs that installation commanders desire for other reasons, and that funding is being provided only to meet legally binding requirements in an efficient fashion. Some DOD officials fear that Congress's focus on compliance will lead to caps on compliance funding, either at the service-wide level or within each DOD component.

As with many other elements of the DOD environmental program, compliance needs are generally considered routine costs of doing business. Consequently, they are determined at the installation level, reviewed by programmers at increasingly higher levels in the services, and ultimately reviewed by the Office of the Secretary of Defense. Installation managers have great incentives to ensure that compliance needs are met, since by law they may be criminally liable for violations occurring on their bases. With fines for violations ranging as high as $25,000 per day, DOD views environmental compliance as a worthwhile front-end investment. Further, violations can lead to installation shut-downs and to disruption of daily operations, including training, that DOD considers essential to military readiness. (40)

DOD has cited several drawbacks to the imposition of compliance funding ceilings. First, an imposed ceiling might threaten an installation's ability to meet its legal requirements. This, argues DOD, runs the risk of exposing military officers to criminal liability, as cited above. Since most managers would attempt to avoid such penalties, critics contend that the strategy would simply create savvy programming techniques in DOD in which funds would be drawn from non-compliance elements of installation budgets to satisfy legal requirements.

One way to avoid such legal complications would be to place caps only on compliance actions not legally required in the fiscal year (i.e., Class II actions and below). DOD has countered that such ceilings would still produce inefficiencies. Officials cite as an example the need to be in compliance with Executive Order 12843, requiring the elimination of ozone-depleting substances, by FY1998. The department contends that phasing in the program today, before it becomes a Class I requirement, will cost far less than attempting to fund compliance fully in the year of implementation. The chances of receiving a notice of violation with a gradual, phased-in program are lessened as well.

One congressional concern is that compliance funding may be used inappropriately. Specifically, some worry that installation commanders are requesting extra funds for day-to-day maintenance activities under the compliance rubric in the belief that a compliance-related request stands a greater chance of approval. An alternative to an across-the-board cut in funding would be to address this problem more directly. One technique available to Congress is to require an independent body to conduct installation environmental audits. For the last decade, DOD has performed environmental self-assessments at its active installations. In a report on environmental auditing in 1995, the General Accounting Office commended DOD's program, stating that it could serve as a model for environmental self-assessments throughout the federal government. (41) Congress could require installation audits to determine where inefficiencies exist and whether and how installation managers are using (or misusing) funds. One conceivable outcome of such a requirement may be evidence that installations are interpreting environmental compliance as broadly as possible to include items that might not otherwise receive funding. Audits might uncover not only these types of inconsistencies in compliance funding, but also suggest means by which Congress could ensure integrity in the budgeting process. For example, DOD components use monitoring systems to anticipate budgetary requirements for compliance. Audits may demonstrate ways in which this anticipatory mechanism could be refined.

Should Congress Centralize or Decentralize Funding for Environmental Programs?

Related to the issue of cost control is the issue of how DOD reviews funding of its environmental programs. With the exception of Congressionally-mandated accounts -- DERA, BRAC, SERDP, and Legacy -- DOD's environmental budget is built from the bottom up, beginning at the installation level and ultimately being reviewed in the Office of the Secretary of Defense. For Congress, this produces a system which is not readily overseen. Some congressional committee staff, therefore, are exploring the idea of centralizing the accounts into single line-items, maximizing visibility. The programs would be overseen by the Office of the Secretary of Defense, which would administer and distribute funds to the services subject to tight review by Congress.

DOD argues that the current bottom-up system maximizes local accountability and control over resources. It contends, in particular, that centralizing the accounts would reduce efficiency, by removing the need for services to weigh their environmental requirements against other resource claims. Indeed, DOD has recently sought to de-centralize DERA funding for these very reasons. In May 1995, the Deputy Secretary of Defense issued a memorandum calling for the services to submit their DERA requirements as part of their annual Program Objective Memoranda (POMs). This move to build the DERA budget from the bottom up places responsibility for meeting legal requirements with the individual services, who will be forced to view restoration not as a centralized pot of money from which they can draw, but as an out-of-pocket expense. The Deputy Secretary's directive constitutes a *de facto* devolution of DERA. Since, however, Congress established the account under P.L. 98-212, the *FY1984 Defense Appropriations Act,* its legal elimination and consequent devolution to the services requires statutory change.

To date, there appears to be little support in Congress for DERA devolution. As the FY1995 rescission made clear, the high visibility of a separate account provides an effective means for congressional input into DOD's budgeting priorities. The reduction in DERA funding as one means of financing supplemental appropriations for contingency operations, was in part a means by which Congress displayed its disapproval over how DOD funds were being spent. To many in Congress, devolving DERA would remove an important lever for influencing Administration defense policy.

CONCLUDING OBSERVATIONS

In its second session, the 104th Congress likely will again consider reductions in defense environmental expenditures. If continuing limits on funding are not to disrupt the cleanup process and undermine DOD compliance with environmental laws and regulations, DOD and Congress will need to devise ways in which the department's legal requirements can be met in a fiscally constrained environment.

To date, congressional attempts to limit DOD's environmental costs have focused almost entirely on reducing environmental restoration funding. This focus is a natural outgrowth of the Defense Environmental Restoration Account's visibility, which lends itself to congressional oversight. DOD has complained, however, that some of the reductions in DERA, in the absence of regulatory reform, have undermined the department's ability to meet legal requirements and, by delaying cleanups, may only drive up long-term costs.

An alternative means of reducing cleanup costs is to implement procedures to make more efficient use of the dollars allotted to DERA. Determining priorities through relative risk assessments, using a zero-based budgeting strategy, and applying generic remedies where possible are a few of the proposed ways in which dollars might be stretched. Moreover, DOD supports some significant changes in the legal and regulatory framework that governs the cleanup process. Congress is considering several of these changes in pending Superfund reauthorization bills. While not without drawbacks, the search for better ways in which to manage the DERA program may hold great promise for ensuring environmental protection at lower cost.

Congress may also consider imposing caps on DOD's complex environmental compliance budget. Ensuring that compliance funding is actually reduced through this strategy may prove difficult, given the funding flexibility typical in Operation and Maintenance accounts. An attempt to reduce compliance funding without risking court orders, expensive fines, and possible public relations problems may benefit from a more in-depth investigation of current practices at the installation level.

Finally, the debate over centralizing or de-centralizing funding for DOD environmental activities is especially significant from the point of view of legislative-executive relations. The dispute illustrates the differing perspectives of the overseer and the overseen -- Congress professes concern about visibility and accountability, while DOD professes a desire for flexibility and efficiency.

In addressing all of these issues, Congress faces some difficult challenges: To implement reforms that accelerate cleanup, rather than retard it; that increase cost-effectiveness, rather than raise long-term costs; and that control costs to the Defense Department of ensuring environmental protection, but without eroding recent progress.

Endnotes

1. Seth Shulman, "Operation Restore Earth," *Environment,* March/April 1993, p. 38

2. Tom Slear, "DoD Goes Green," *National Defense,* March 1993, p. 5.

3. Congressional Quarterly. *Congressional Quarterly Almanac: 91st Congress, 2nd Session, 1970.* Volume XXVI. Washington: Congressional Quarterly Inc., 1971, p. 515.

4. For an extensive review of major environmental statutes see: Martin R. Lee, Coordinator. *Summaries of Environmental Laws Administered by the Environmental Protection Agency.* CRS Report 95-59 ENR. January 3, 1995.

5. Slear, p. 7

6. In this context, "former" installations, or Formerly Used Defense Sites (FUDS), exclude bases closed under the Base Closure Acts. For environmental policy toward closing bases, see the Base Closures subsection below.

7. The term "site" does not necessarily equate to a military installation or facility. In fact, several hazardous sites may coexist on a single installation. Likewise, contamination at a site may be localized, with the rest of the facility considered clean.

8. For a thorough discussion of DOD environmental restoration projects and their status, see: United States. Department of Defense. *Defense Environmental Restoration Program: Annual Report to Congress for Fiscal Year 1994.* Washington: GPO, 1995. March 31, 1995; and United States. Congress. Congressional Budget Office. *Cleaning Up Defense Installations: Issues and Options.* January 1995.

9. P.L. 102-426.

10. At U.S. military bases overseas, DOD generally complies with host nation environmental standards under Status of Forces Agreements.

11. For a list of environmental statutes and executive orders applicable to the Department of Defense, see: Renew America. *Environmental Partnerships: Improving Opportunities for Military/Civilian Cooperation.* Final Report to the Deputy Under Secretary of Defense (Environmental Security). Washington: Renew America, 1994, pp. 28-31.

12. United States. Department of Defense. *Defense Environmental Quality Program: Annual Report to Congress for Fiscal Year 1994.* Washington: GPO, 1995. p. 62.

13. Sherri W. Goodman, in U.S. Congress. House. Committee on Appropriations. Subcommittee on the Department of Defense. *Environmental Restoration, Defense.* Hearings. March 23, 1994, p. 63.

14. Andrew Weinschenk, Pentagon Pollution Problems: Rhetoric and Reality," *Defense Week,* Aug. 16, 1993, p. 8.

15. "DOD Environmental Security Chief to Sit on Defense Acquisition Board." *Aerospace Daily.* January 24, 1994, p. 110.

16. Goodman, March 23, 1994, p. 62.

17. See, for example, *Defense Environmental Quality Program: Annual Report to Congress for Fiscal Year 1994,* pp. 46-54; Goodman, March 24, 1995.

18. Goodman, March 23, 1994, p. 15.

19. Senator Sam Nunn in: U.S. Congress. Senate. Committee on Armed Services. *The Strategic Environmental Research and Development Program.* Hearings. May 7, 1992. 102nd Congress, 2nd Session. Washington: GPO, 1992, pp. 1-2.

20. Statement of Sherri W. Goodman, Deputy Under Secretary of Defense (Environmental Security), before: U.S. Congress. House. National Security Committee. Subcommittee on Installations and Facilities and Subcommittee on Readiness. Hearings. 104th Congress, 1st Session. March 24, 1995.

21. Examples of the conservation statutes with which DOD must comply include: the National Historic Preservation Act, the National Environmental Policy Act, the American Indian Religious Freedom Act, and the Archeological Resources Protection Act.

22. U.S. Congress. Senate. Committee on Appropriations. *Department of Defense Appropriation Bill, FY1993.* Report 102-408. 102nd Congress, Second Session. Washington: GPO, 1992. September 17, 1992, p. 68.

23. Unless otherwise noted, all figures provided in this report are calculated in FY1996 constant dollars.

24. SERDP: FY1991 *National Defense Authorization Act* (P.L. 101-510), Title XVIII; Base Realignment and Closure Account, environmental funding: *FY1991 National Defense Authorization Act* (P.L. 101-510), Title XXIX, Section 2923; Legacy: *FY1991 National Defense Appropriations Act* (P.L. 101-511), Title VIII, Section 8090.

25. U.S. Congress. Senate Appropriations Committee. *Department of Defense Appropriations Bill, 1993.* Report, 102-408. 102nd Congress, Second Session. Washington: GPO, 1992. September 17, 1992, p. 81.

26. Much of the money spent on environmental programs in DOD is divided among several major accounts, making it difficult to draw a complete picture of how annual congressional appropriation actions affects DOD's environmental spending plans. For example, a decrease to the Navy's Operation and Maintenance appropriations might cause a decrease in the O&M funds spent on compliance activities, but, if Congress does not specify how the decrement should be allocated, the correlation is not direct. **Table 7**, therefore, tracks congressional add-ons to the annual budget request for three programs with specific line-item accounts.

27. For a discussion of "non-traditional" defense spending, see Stephen Daggett. *Defense Budget for FY1996: Major Issues and Congressional Action.* CRS Issue Brief IB95049. Updated regularly.

28. For a detailed discussion, see: Stephen Daggett, *Defense Funding for FY1995: Congressional Action on Supplemental Appropriations and Offsetting Rescissions.* CRS Report 95-1112F. August 14, 1995. 14 p.

29. U.S. Congress House. Committee on National Security. *National Defense Authorization Act for FY1996 and FY1997.* Report, 104-131. 104th Congress, First Session. June 1, 1995, p. 203.

30. For an extensive discussion of regulatory reform legislation in the 104th Congress, see Linda-Jo Schierow. *Risk and Cost-benefit Provisions in House and Senate Bills --Update.* CRS Report for Congress, 95-576 ENR. May 8, 1995; Linda-Jo Schierow. *The Role of Risk Analysis and Risk Management in Environmental Protection.* CRS Issue Brief IB94036. Updated regularly; and Roger Garcia. *Federal Regulatory Reform. An Overview.* CRS Issue Brief IB95035. Updated regularly.

31. Comments made by Sherri W. Goodman, Deputy Under Secretary of Defense (Environmental Security), at: The National Environmental Policy Institute. "How Clean is Clean Enough?" Roundtable discussion. Washington, D.C. June 22, 1995.

32. Allan Freedman, Senate Plan Would Shift Costs, Narrow Scope of Superfund," *Congressional Quarterly Weekly Report,* 1 July 1995, p. 1923; Allan Freedman, "Businesses May Escape Cleanup Costs, *Congressional Quarterly Weekly Report,* 22 July 1995, p. 2174.

33. See, for example: Goodman, March 24, 1995; Statement of Robert B. Pirie, Jr., Assistant Secretary of the Navy (Installations and Environment), before: U.S. Congress. Senate. Committee on Appropriations. Subcommittee on Defense. Hearings. 104th Congress, 1st Session. July 11, 1995.

34. Statement of Thomas W.. McCall, Jr., Deputy Assistant Secretary of the Air Force (Environment, Safety and Occupational Health), before: U.S. Congress. Senate. Committee on Appropriations. Subcommittee on Defense. Hearings. 104th Congress, 1st Session. July 1 1, 1995.35. Statement of Robert M. Walker, Assistant Secretary of the Army (Installations, Logistics, and Environment), before: U.S. Congress. Senate. Committee on Appropriations. Subcommittee on Defense. Hearings. 104th Congress, First Session. July 11, 1995.

36. Goodman, March 24, 1995.

37. Congressional Budget Office. *Cleaning up Defense Installations: Issues and Options.* CBO Papers. January 1995, p. 31.

38. Proposals from: Office of the Deputy Under Secretary et Defense, Environmental Security. *Superfund Reform.* Briefing slides.

39. Example cited at: The National Environmental Policy Institute. "How Clean is Clean Enough?" Roundtable discussion. Washington, D.C. June 22, 1995.

40. Goodman, March 23, 1994, p. 9.

41. General Accounting Office. *Environmental Auditing: A Useful Tool That Can Improve Environmental Performance and Reduce Costs.* GAO-RCED 95-37. April 3, 1995. Washington: GPO, 1995.